

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: )  
)  
Shigeaki **KATO** *et al.* )  
) Group Art Unit: 1646  
Application No: Not yet assigned )  
) Examiner: Joseph F. Murphy, Ph.D.  
Filed: Concurrently herewith )  
)  
For: METHOD OF SCREENING FOR )  
PHARMACEUTICALS BY DETECTING )  
CROSS TALK BETWEEN )  
INTRACELLULAR SIGNALS AND )  
INTRANUCLEAR RECEPTORS )

Commissioner for Patents  
Washington, D.C. 20231

Sir:

**PRELIMINARY AMENDMENT**

Prior to examination of the above-identified application on the merits, please amend the above-identified application as follows:

**IN THE TITLE:**

Please delete the title as it on page 1, lines 2 and 3 of the disclosure, and insert therefor the following new title:

--METHOD OF SCREENING FOR PHARMACEUTICALS BY DETECTING CROSS  
TALK BETWEEN INTRACELLULAR SIGNALS AND INTRANUCLEAR RECEPTORS--.

**IN THE CLAIMS:**

Please amend claims 7 and 8 as follows:

7. (Amended) A method of screening for a substance that inhibits or induces interaction between a transcription coupling factor and Smad molecule comprising the following steps:

- a. preparing a culture system consisting of introducing a transcription coupling factor expression vector and a Smad molecule expression vector into cultured cells and culturing said cells;
- b. adding a substance to be tested to said culture system; and
- c. measuring inhibition activity or induction activity of said substance by detecting the binding of said transcription coupling factor to said Smad molecule.

8. (Amended) A method of screening for a substance as claimed in claim 7, wherein said transcription coupling factor is CBP and/or p300.

Please add new claims 14-17:

14. A method of screening for a substance as claimed in claim 7, wherein said Smad molecule is Smad3.

15. A method of screening for a substance that inhibits or induces interaction between a transcription coupling factor and a Smad molecule comprising: physically contacting said transcription coupling factor with said Smad molecule in the presence or absence of a substance to be tested; detecting the binding of said transcription coupling factor to said Smad molecule; and measuring inhibition activity or induction activity of said substance.

16. A method of screening for a substance as claimed in claim 15, wherein said transcription coupling factor is CBP and/or p300.

17. A method of screening for a substance as claimed in claim 15, wherein said Smad molecule is Smad3.

**REMARKS**

Claims 7 and 8 have been amended to clarify the claims and to conform to amendments made in the parent application, U.S. Application No. 09/188,884, in the Amendment of March 2, 2000. The claims have also been amended to recite that the screening method allows one to screen for any substance that inhibits or induces interaction between a transcription coupling factor and a Smad molecule, and thus the screening method is not only for the identification of pharmaceuticals.

New claims 14-17 correspond to claims 17, 21, 22 and 23 added by the amendment of March 2, 2000, and are part of the claims of Group III of the restriction Requirement of May 23, 2000, along with original claims 7 and 8.

Support for new claims 14-17 can be found in the specification as indicated below. There is no issue of new matter.

<b><u>Claim #</u></b>	<b><u>Examples of Support in the Specification</u></b>
14	Examples 2-5 (p19-25)
15	p15-16, Example 5 (p24-25)
16	p15-16
17	p15-16

**CONCLUSION**

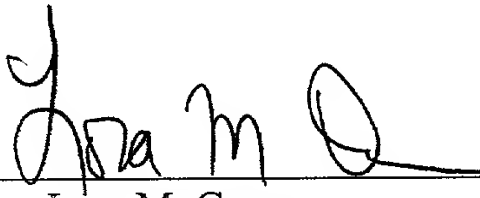
For the reasons set forth above, entry of the forgoing amendment and examination is respectfully requested. A favorable action is awaited.

Should the Examiner find that an interview is required to further prosecution of this application, they are invited to telephone the undersigned at their convenience.

If there are any additional fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

**MORGAN, LEWIS & BOCKIUS LLP**

By:   
Lora M. Green  
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Dated: May 4, 2001

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**Marked up Copy As Amended**

**In the Title:**

[A] METHOD [FOR] **OF SCREENING FOR PHARMACEUTICALS [AND A METHOD FOR MOLECULAR DESIGNING SAID PHARMACEUTICALS] BY DETECTING CROSS TALK BETWEEN INTRACELLULAR SIGNALS AND INTRANUCLEAR RECEPTORS**

**In the Claims:**

7. (Amended) A method [for] **of screening [of pharmaceuticals comprising detecting] for a substance that inhibits or induces** interaction between a transcription coupling factor and Smad molecule **comprising the following steps:**

- a. **preparing a culture system consisting of introducing a transcription coupling factor expression vector and a Smad molecule expression vector into cultured cells and culturing said cells;**
- b. **adding a substance to be tested to said culture system; and**
- c. **measuring inhibition activity or induction activity of said substance by detecting the binding of said transcription coupling factor to said Smad molecule.**

8. (Amended) [The] **A** method [for] **of screening [pharmaceuticals] for a substance** as claimed in claim 7, [characterized in that] **wherein** said transcription coupling factor is CBP and/or p300.